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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,865	11/05/2003	Joseph J. Kubler	14364US03	7803

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EXAMINER

VINCENT, DAVID ROBERT

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/701,865

Applicant(s)

KUBLER ET AL.

Examiner

David R Vincent

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-54 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 22-54 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

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1. Regarding claims 24, 31, 38, 45, 49, and 53 the applicant is advised that IP and TCP are two distinct protocols but are commonly referred to as the TCP/IP suite of protocols. The applicant *may* want to rephrase the expression the IP is the TCP/IP protocol because it amounts to saying the Internet Protocol is the Transmission Convergence Protocol/Internet Protocol protocol.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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1. Claims 22-24, 28-32, 36-39, 43-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Ayanoglu (5,570,367).

As shown in Figs. 1-6, especially Fig. 1, Ayanoglu discloses communications network (Fig. 1) supporting the exchange of voice and data (data from e.g., computer 102, and voice from phone 152, Fig. 1 and respective disclosure, especially col. 2, lines 50-56; and col. 3) wherein the portable terminal (e.g., 152) includes a processing circuit which converts analog data/sound (e.g., speech) into packets using a medium access controller (e.g., col. 3, especially line 22), captures data packets (using e.g., CDMA, TDMA and receiving e.g., data for computer 102; col. 2; col. 7, lines 14-41), at least one access device (cell sites 106-108, 110, or 112, and respective disclosure) having an interface (e.g., connection to 130 or port to 140) for a wired network which is a PSTN or Internet (col. 5, lines 50-60), selectively transferring (based on call setup, col. 6, lines 20-32; col. 7, lines 14-41; and using polling and stored packets in a buffer, col. 4, lines 5-66), using a transceiver circuit to send at least a portion of the information from a network interface to a wireless interface (e.g., modulating data, col. 2, lines 45-67; sending analog voice over a digital wireless medium, col. 3, lines 6-50; or Fig. 1 and respective disclosure), using IP or TCP/IP (e.g., col. 5, lines

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50-60), a digital network interface (using packets, as in TCP/IP, col. 5, lines 50-60), and data unrelated to voice (e.g., data from computer 102; col. 7, lines 14-41 or PDA, col. 3), as specified in claims 22-24, 28-32, 36-39, 43-50.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 25-27, 33-35, 40-41, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayanoglu as set forth above, in view of Bruckert (US 5,128,959).

However, Ayanoglu failed to particularly call for using a plurality of data rates, frequency hopping, and Direct Sequence Spread Spectrum (DSSS), as specified in claims 25-27, 33-35, 40-41, and 51.

Bruckert teaches using a plurality of data rates in a CDMA network (various bandwidths, col. 3, lines 10-14; col. 4, lines 38-58; using resource requests for BW, col. 6, lines 39-45; col. 7, lines 36-46), frequency hopping (e.g., col. 2, lines 13-31),

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and DSSS (e.g., col. 2, lines 13-31), as specified in claims 25-27, 33-35, 40-41, and 51.

It would have been obvious to use a plurality of data rates because Ayanoglu discloses sending packets of data from a plurality of sources (Ayanoglu: e.g., 103, 101, 151, Fig. 1), over a CDMA link (Ayanoglu: col. 3, lines 5-12), which could easily require a plurality of different rates or bandwidths for each device.

It would have been obvious to use frequency hopping because FH is part of the 802.11 WLAN suite of access methods and combining FH with TDMA amounts to making a system similar to a GSM system. Adding FH helps to mitigate fading, and TCP/IP runs on top of the layer-2 protocols such as the MAC/Ethernet layer.

It would have been obvious to use DSSS because it is well known to use mobiles both inside buildings as in personal handy phones, PDAs or with WLANs. Using DSSS is part of the 802.11 WLAN suite of access methods and using DSSS helps to mitigate fading.

Claim Rejections - 35 USC § 103

3. Claims 27, 35, 42, and 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ayanoglu and Cripps, as set forth above, in view of Scholefield (US 5,742,592).

In the event that the applicant would argue using a plurality of bandwidths does not inherently result in a plurality of different data rates being used, a third teaching (Scholefield) is included.

Scholefield teaches creating MAC layer packets (col. 3, lines 44-67; col. 4, line 50-col. 5, line 6) using a plurality of data rates (using a plurality of sub channels, col. 3, lines 1-67; col. 4, lines 13-67), in a CDMA, GSM, GPRS or TDMA network (col. 1 or col. 3, lines 25-31), wherein the mobiles may be PDAs or computers (col. 3, lines 13-44).

It would have been obvious to use a plurality of data rates because Ayanoglu discloses sending packets of data from a plurality of sources including PDAs and computers (Ayanoglu: e.g., 103, 101, 151, Fig. 1), over a CDMA link (Ayanoglu: col. 3, lines 5-12), which could easily require a plurality of different rates or bandwidths for each device. By assigning a plurality of sub channels and/or using a wider bandwidth, a computer could send data files or access web sites on the Internet.

Claim Rejections - 35 USC § 103

4. Claims 27, 35, 42, and 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayanoglu, as set forth above, in view of Mahany (US 5,483,676).

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In the event that the applicant would argue using a plurality of bandwidths does not inherently result in a plurality of different data rates being used, a third teaching (Scholefield) is included.

Mahany teaches using a TDMA network (col. 5, lines 1-9), polling and a plurality of data rates (col. 2, lines 35-57; col. 7, lines 41-67) wherein the BER (col. 19), signal strength or quality of the channel is taken into account (col. 15, line 50-col. 17, line 32).

It would have been obvious to use a plurality of data rates because Ayanoglu discloses using a TDMA link (Ayanoglu: col. 2, lines 45-56 or col. 3, lines 5-12) sending packets of data from a plurality of sources including PDAs and computers (Ayanoglu: e.g., 103, 101, 151, Fig. 1), which could easily require a plurality of different rates for each device. By increasing the data rate, a computer could send data files or access web sites on the Internet when network conditions prevailed.

Claim Rejections - 35 USC § 103

5. Claims 25, 33, 40, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayanoglu as set forth above, in view of Cripps (US 5,838,730).

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However, Ayanoglu failed to particularly call for using the 2.4 Ghz band and frequency hopping, as specified in claims 25, 33, 40 and 47.

Cripps teaches using the 2.4 GHz band and frequency hopping (FH) with a WLAN (e.g., abstract or col. 2, lines 13-35), as specified in claims 23-24, and 41; and Ethernet compliant (WLAN, cols. 1-2), as specified in claims 25, 33, 40, and 47.

It would have been obvious to use the ISM or 2.4 GHz band because it is one of the available frequencies for wireless communication and because it is well known to use mobile both inside buildings as in personal handy phones or with WLANs. Using frequency hopping is part of the 802.11 WLAN suite of access methods and combining FH with TDMA amounts to making a system similar to a GSM system. Adding FH helps to mitigate fading, and TCP/IP runs on top of the layer-2 protocols such as Ethernet.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

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art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 26, 34 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayanoglu as set forth above, in view of Gilhousen (US 5,280,472).

However, Ayanoglu failed to particularly call for using Direct Sequence Spread Spectrum (DSSS), as specified in claim 25 and 42.

Gilhousen teaches that DSSS is a well-known method of communicating wirelessly (e.g., col. 4, lines 27-46).

It would have been obvious to use the DSSS because it is well known to use mobiles both inside buildings as in personal handy phones or with WLANs. Using DSSS is part of the 802.11 WLAN suite of access methods and using DSSS helps to mitigate fading.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David R Vincent whose telephone number is 571 272 3080. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571 272 3126. The fax phone number for the

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organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David R Vincent
Primary Examiner
Art Unit 2661

February 19, 2005